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Ontario. Hydro-Electric Inquiry
Commission, 1922-1924

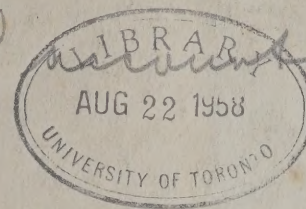
J. ALLAN ROSS
FINANCIAL Commissioner

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HYDRO-ELECTRIC INQUIRY COMMISSION

(HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO)

Reports on investigation of



REPORT ON INVESTIGATION OF ACCOUNTS
OF
WASDELL SYSTEM
DATED NOVEMBER 7, 1922

Pricewaterhouse & Co.

ROYAL BANK BUILDING
TORONTO, ONT., CANADA

PRICE, WATERHOUSE & Co.

UNITED STATES, CANADA, MEXICO.
GREAT BRITAIN.

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ALSO, GREAT BRITAIN
W. B. PEAT & CO.

November 7, 1922.

W.D. Gregory, Esq., Chairman,
Hydro-Electric Inquiry Commission,
Toronto, Ontario.

Dear Sir:-

WASDELL SYSTEM AND WASDELL RURAL LINES

Pursuant to your instructions we have made a general investigation of the accounts and records relating to the Wasdell System and the Wasdell Rural Lines, operated by the Hydro-Electric Power Commission of Ontario, and we have prepared therefrom and submit herewith the following Exhibits:

Exhibit I Operating Account of the Wasdell System

- " Ia Analysis of Revenue from Municipalities, etc., together with Horse Power Loads and Rates
- " II Operating Account of the Wasdell Rural Lines
- " III Statement showing the basis for the annual rate of Reserve for Renewals
- " IV Statement of Accounts due by Municipalities in respect of the cost of power at October 31, 1921, unpaid at September 30, 1922
- " V Excerpts from a Contract with a Municipality re supply of Electrical Power

SCOPE OF INVESTIGATION

The books and accounts of the Hydro-Electric Power Commission of Ontario have been audited by Mr. G.T. Clarkson, F. C. A., of Messrs. Clarkson, Gordon & Dilworth, therefore it was decided that our investigation should be limited to a general review of the accounts and an inquiry into any important questions of principle involved therein.

The accounts of the Wasdell System and the Wasdell Rural Lines are contained in and form a part of the general books of the Hydro-Electric Power Commission of Ontario, and are reported upon herein, according to the following sub-divisions:

<u>ACCOUNTS</u>	<u>Balance as at</u> <u>October 31, 1921</u>	
	<u>Debit</u>	<u>Credit</u>
<u>CAPITAL INVESTMENT</u>	\$335,362.22	\$
<u>OPERATING ACCOUNT</u>	-	
<u>RESERVE FOR REPAIRS</u>		30,973.73
<u>RESERVE FOR SINKING FUND.</u>		
Wasdell System		11,169.51
Wasdell Rural Lines		611.43
<u>RESERVE FOR CONTINGENCIES</u>		240.64
<u>ACCOUNTS WITH MUNICIPALITIES.</u>		
Power Accounts Receivable	6,665.12	
Accounts in Respect of Cost of Power (adjusted)	19,117.30	

HISTORY AND ORGANIZATION

The Wasdell System had its inception in 1913, when the Commission purchased, for \$8,200.00, property adjoining Wasdell Falls on the Severn River, and commenced construction of a power development plant. The physical properties consist also, of low tension lines and distributing stations. The development of the water power was approved by Order-in-Council under date of April 21, 1913, as follows:

"Upon recommendation of the Hydro-Electric Power Commission of Ontario, in that behalf, the Committee of Council advise that pursuant to the provisions of "The Power Commission Act" Chapter 19, 7 Edward VII and amendments thereto, the Commission be authorized to develop the water power known as Wasdella Falls on the Severn River in the Province of Ontario such authority to cover the following matters:

1. The purchase of the Riparian rights necessary for the development
2. The purchase of necessary material and equipment for construction of the plant at Wasdells Falls for the generation of electrical energy and its transformation for transmission to the Municipalities in the Cannington and Beaverton Districts
3. The construction of transmission lines and transformer stations for delivery of power to the Municipalities in the Cannington and Beaverton District, including both low and high tension transmission lines.*

The recommendation of the Commission referred to in the Order-in-Council is made a part of that Order.

In November 1914, the System began to serve four municipalities with power and late in 1916, the Commission, acting on behalf of the Wasdell System, commenced selling part of its surplus power to the Severn System. At the close of the latest fiscal year of the Commission, October 31, 1921, the System was serving electrical power to six municipalities, as listed below, and one Company, (the Crushed Stone Company, Limited, at Kirkfield) besides continuing the sale of power to the Severn System:

<u>Municipality</u>	<u>Date commenced Operating</u>	<u>Date of Contract</u>
Beaverton	November 1914	March 20, 1913
Cannington	November 1914	" 10, 1913
Sunderland	" 1914	1913*
Woodville	" 1914	1913*
Brechin	January 1915	April 2, 1913
Kirkfield	June 1920	February 24, 1920

*Date omitted on contract on file

The form of contract in use, relating to the supply of electrical power by the Commission to the Municipality of Brechin, is set forth on Exhibit V, attached hereto, and is similar in form to that of each of the other municipalities listed above.

Under date of November 28, 1919, the Hydro-Electric Power Commission of Ontario, entered into an agreement for the supply of

electrical power to the Municipal Corporation of the Township of Eldon, which agreement covers the delivery of Hydro-Electric power to residents or users within the Township. It is agreed that the Commission will reserve and deliver electrical power, as required by the Corporation, on the basis of cost, and that the agreement shall remain in force 30 years from the date of the first delivery of power. The Crushed Stone Company, Limited, lies within the Township of Eldon and is a user of Hydro-Electric power.

While the Commission has not entered directly, into an agreement, for the supply of electrical power, with the Crushed Stone Company, Limited, an agreement has been entered into for such service, between the Municipal Council of the Township of Eldon and the Stone Company, and a copy of that indenture is on file with the Commission.

The agreement with the Crushed Stone Company, Limited, just referred to, is for a period of five years, with extension privileges, and the Corporation reserves the right to appoint the Hydro-Electric Power Commission of Ontario its authorized agent to administer the agreement and to collect all revenues as provided therein. According to the agreement the Corporation reserves for the customer 100 kilowatts of electrical power, with privileges in respect of increase, at a rate of \$1.00 per month per horse power of maximum demand, as a service charge, plus a consumption charge per kilowatt hour on a differential basis.

The Waddell Rural Lines upon which construction was started in 1918, in the vicinity of Beaverton, included, as at October 31, 1921, lines operated by Beaverton, Brechin, Sunderland (Brock Township) and Woodville. As stated by Mr. Clarkson in the report on the accounts as at October 31, 1921, "The Rural Lines of the System are operated by municipalities which supply power thereto through their local Commissions. Such municipalities collect the revenue from the customers on these rural lines, pay all operating costs and also pay to the

Commission interest and sinking fund on the capital invested by it.*

CAPITAL INVESTMENT - \$335,382.32:

The investment in plant, equipment, etc., of the Vassell System and Rural Lines embraces the following, the balances being shown at the close of each fiscal year, for the five years ending October 31, 1921, (cents omitted):

Accounts	As at October 31				
	1917	1918	1919	1920	1921
Power Development	\$139,913	\$140,563	\$140,787	\$141,760	\$141,886
Wood Pole Lines	110,799	110,470	116,343	123,600	124,189
Transformer Stations	14,820	14,735	14,736	25,215	26,909
<u>Together</u>	\$264,731	\$265,768	\$269,766	\$321,365	\$332,983
Rural Power Distribution and Rural Lines Construction	-	4,337	7,698	11,202	12,399
<u>Total</u>	\$264,731	\$270,105	\$273,464	\$332,947	\$335,382

The increase of \$43,891.00 in the investment in wood pole lines consists chiefly of expenditures incurred during the fiscal year ending October 31, 1920, in stringing aluminum cable to replace steel cable, and in installing a second telephone circuit between Vassell Falls and Furber Junction.

The increase in the investment in transformer stations, amounting to \$12,389.00, consists chiefly of expenditures incurred during the fiscal year ending October 31, 1920, in the construction and equipment of a new station at Kirkfield.

Under date of August 2, 1922, a memorandum relative to the analysis of capital assets was submitted by us for consideration. On Exhibit VII, attached to that memorandum, will be found details in connection with the cost of the Vassell System, from the commencement thereof, to October 31, 1921, prepared from the Accounting Department

records of the Hydro-Electric Power Commission of Ontario.

Expenditures on Rural Lines at October 31, 1921 and at August 31, 1922, the date of the latest closing of the accounts, are as follows:

Particulars	October 31 1921	August 31 1922
Cedarhurst, Maple		
Beach and Lovers Lane	\$ 4,757.48	\$4,757.48
Cedarhurst Line out of Beaverton	418.70	471.97
Maple Beach Section	319.67	354.48
Hamlet of Cambridge	30.48	30.48
Extension to Woodville Primary		
Lines, north into Eldon Township		
to Hamlet of Lorneville	2,748.16	2,895.62
Brook Township Primary Line	3,541.89	3,541.89
Nara Township	301.71	301.71
Thorah Township	281.06	281.06
Beaverton Rural Power District-		
Secondary Circuits		550.41
Cannington Rural Power District-		
1.25 miles primary lines with		
secondary lines to serve 3		
consumers		1,163.92
.35 mile primary and secondary		
lines to serve one consumer		18.53
Secondary circuits only		132.33
<u>Total</u>	<u>\$12,399.15</u>	<u>\$14,505.93</u>

The Engineers and Accountants of the Commission are, we are informed, now engaged in classifying the above expenditures as between those in respect of primary lines and those for other purposes, which, we understand, will serve as a basis for recommendations to be made by the Commission to the Government, regarding the reimbursement of the funds expended for constructing and erecting in the rural power zone, primary transmission lines and cables for delivery of electrical power.

Estimate of Additional Funds required for Construction - \$125,000:

It has been estimated by the Engineers of the Commission that as at October 31, 1921, additional funds of \$120,000.00 and of \$35,000.00 will be required for the Wasdell System in order to complete, during the years ending October 31, 1922 and 1923, respectively, work

now in progress and for betterments and extensions to be undertaken, and of rural lines to be constructed. Particulars of the proposed expenditures are set forth in the "Estimates" and "Further Supplementary Estimates" of the Province of Ontario, for the fiscal years ending October 31, 1922 and 1923, printed by order of the Legislative Assembly of Ontario. Briefly stated they are as follows:

<u>Particulars</u>	<u>Years ending October 31</u>	
	<u>1922</u>	<u>1923</u>
Stations and Lines for Cambridge and Port Perry - probable cost of extensions	\$ 55,500.00	\$
Miscellaneous Betterments	10,000.00	10,000.00
Rural expenditures on account of Rural Electrification in Townships already under application	54,500.00	25,000.00
<u>Total</u>	<u>\$120,000.00</u>	<u>\$ 35,000.00</u>

It is recommended that a report upon these estimates should be made by Mr. Walter J. Francis.

OPERATING ACCOUNTS:

The Operating Account of the Russell System for each of the four years ending October 31, 1921, is attached hereto, Exhibit I, which is supported by Exhibit Ia, giving further details in respect of revenue and of rates for power. For convenience of reference, the following brief summary of the operating results for the four years, sub-divided according to municipalities, the Severn System, and the one company, is given (cents omitted):

Particulars	Years ending October 31			
	1918	1919	1920	1921
<u>Municipalities:</u>				
Revenue (per operating account) before applying Profit or Loss on sale of power to others	\$19,975	\$18,319	\$21,650	\$21,339
Profit or Loss on sale of power (on cost basis)- To Govern System	3,127	530	2,350	-
To Company	-	-	-	2,315
<u>Net Amount</u>	\$16,798	\$16,004	\$19,355	\$19,374
Operating Cost	\$ 4,870	\$ 5,150	\$ 6,744	\$ 6,932
Fixed Charges	11,918	11,654	12,611	12,342
<u>Total Expenses</u>	\$16,788	\$16,804	\$19,355	\$19,374
<u>Balance</u>	\$11	\$11	\$11	\$11
<u>Severn System:</u>				
Revenue	\$ 9,125	\$15,509	\$12,417	\$12,303
Operating Cost	\$ 4,149	\$ 5,530	\$ 6,337	\$ 5,074
Fixed Charges	5,104	9,390	9,485	7,399
<u>Total Expenses</u>	\$12,312	\$14,920	\$14,712	\$12,303
<u>Balance transferred to Municipalities</u>	\$ 3,277	\$ 580	\$ 2,350	\$ -
<u>Private Company:</u>				
Revenue	\$ -	\$ -	\$ 5,007	\$ 8,440
Operating Cost	\$ -	\$ -	\$ 1,701	\$ 3,363
Fixed Charges	-	-	3,978	7,392
<u>Total Expenses</u>	\$ -	\$ -	\$ 5,679	\$10,755
<u>Balance transferred to Contingency Reserve</u>	\$ -	\$ -	\$ -	-
<u>Balance transferred to Municipalities</u>	-	-	-	10,315
<u>Together (per operating account):-</u>				
Operating Cost, etc.	\$ 9,618	\$10,680	\$14,732	\$15,369
Fixed Charges	20,682	21,844	22,614	27,023
<u>Combined Totals</u>	\$29,100	\$31,724	\$37,346	\$42,392
<u>Percentage of Fixed Charges to Total Expenses-</u>				
For Municipalities	70.99%	66.35%	65.12%	64.65%
" Govern System	66.31%	67.93%	57.97%	58.95%
" Private Company	-	-	70.64%	68.73%
Combined	69.01%	65.33%	62.93%	63.74%

It will be seen from the above summary that the Municipalities were charged with the Cost of Power and the distribution thereof and with that proportion of fixed charges which pertained to the power supplied. The power sold to the Severn System and to the Company (the Crushed Stone Company) was, in each case, charged with its proper proportion of operating expenses and fixed charges, and any profit or loss resulting from such sales, was transferred either to accounts with municipalities or to the Reserve for Contingencies.

The operating results shown above are those stated in the published accounts of the Commission. As at October 31, 1920, an adjustment, representing a reduction of \$26,525.60 was made by the Commission on account of the Reserve for Renewals, included in the cost of power, from inception of the System, to October 31, 1919, the annual renewal rate having been reduced from 3½% to 2½, on the basis more fully discussed in connection with the Reserve for Renewal Account. Of the total adjustment, \$7,973.61, exclusive of interest, is applicable to two of the periods included in the above summary of operating results, the effect thereon being as follows:

Particulars	Year ending October 31	
	1918	1919
Total Fixed Charges per above Summary	\$30,662	\$31,044
Less- Adjustment	3,937	3,938
Fixed Charges as adjusted	\$16,725	\$17,106
Operating Cost, etc.	9,618	10,639
Together (Total Cost)	\$26,343	\$27,745
Percentage of Fixed Charges to Total Cost (adjusted)	64.00%	61.50%
As compared with percentages before adjustment of	69.61%	66.33%

It should be mentioned that the net loss, on the cost basis of \$4,692.00 since October 31, 1917, resulting from sales of power to

the Severn System, and the loss of \$2,315.00 on power sold to sundry customers in 1921 has been transferred to revenue account of the municipalities and distributed thereto in proportion to the amounts paid in respect of maintenance and certain operating costs of the System. For the period from September 1916, the date the Wasdell System began supplying power to the Severn System, to October 31, 1917, a profit of \$7,499 was realized and treated in the above manner as reflected by the audit report of that period by Mr. C.T. Clarkson. The profit on the cost basis on power sold to the Severn System, over the entire period of operations aggregated \$2,606.00.

Upon reference to Exhibit 1a it may be observed that the electrical power furnished the Severn System each year is of substantial amount, but in making the adjustment of the renewal reserve as explained above, due to a flat rate of \$25.00 per horse power having been charged the Severn System by the Wasdell System from September 1916 to October 31, 1920, no proportion of the adjustment was credited to the Severn System. With reference to the rate chargeable to one system by another system for electrical power furnished, the Power Commission Act provides as follows:

"The Commission shall have the right wherever physical connections may be made between any of the Systems operating under this Act to make the necessary connections so as to divert power from any one system to any other system, and the means of such connection, and the price to be paid by the system receiving such power to the system supplying such power shall in all cases be determined by the Commission, and the cost of the power so taken by any one system from any other shall be dealt with by the Commission under the provisions of the Act as the cost or part of the cost of the power to be paid by the municipalities forming part of such system under their contracts with the Commission."
(Section 23c of The Power Commission Act)

"The price payable for power by one system to another shall be collected by the Commission from the system owing the same for the system entitled to receive the same, and all sums so paid to any system shall be applied to the cost of construction, maintenance and operation of such system in such manner as the Commission may direct."
(Section 23d of The Power Commission Act)

"The Commission shall annually adjust and apportion the amounts payable by municipal corporations under the next preceding section." (34- (1) of The Power Commission Act)

In 1921, it was decided by the Commission that as from that year the power sold to the Severn System by the Wadell System would be at cost and not at the flat rate of \$25.00 per horse power. In the year ending October 31, 1921, the amount collected for power sold, based on interim power bills at \$25.00 per horse power, was \$10,665.61, whereas the total cost of the power delivered by Wadell System to Severn System was \$12,363.60, or \$29.21 per horse power, and the difference of \$1,697.99 has been charged the Severn System in a "thirteenth" power bill.

With reference to the Operating Accounts, they do not, in the main, appear to call for any special comment, either in respect of the four years ending October 31, 1921, or of the period to August 31, 1922, the latest date to which monthly Operating Accounts have been prepared by the accountants. As regards overhead expenses, we show below a further sub-division, than is made on Exhibit 1, of Municipal Expenses and of Miscellaneous Expenses:

Municipal Expenses	Years ending October 31			
	1918	1919	1920	1921
Municipal Auditors	\$ 103.35	\$ 74.20	\$ 203.97	\$ 479.46
" Engineers	-	352.12	527.89	352.36
" Administration	554.32	788.40	872.72	901.46
Total	\$ 657.67	\$1,194.61	\$1,604.41	\$1,741.28
Miscellaneous Expenses-				
All Stations and Lines and Tools Undistributed Expenses	-	18.70	42.04	130.13
Undistributed Truck and Car Expenses	-	-	408.96	107.77
Field Superintendence	-	-	339.16	-
Notifying Department	28.98	106.99	183.14	334.19
General Expenses	579.29	116.25	-	-
Insurance	64.87	-	-	-
Miscellaneous Expenses	-	-	157.43	717.08
Total	\$ 683.14	\$ 241.62	\$1,130.73	\$1,379.17

The charges to the former account have been explained by representatives of the Commission as consisting of the salaries and expenses of municipal auditors and engineers, together with the portion of the cost of municipal administration applicable to the municipalities in the System.

On Exhibit II is shown the Operating Account of the Wendell Rural Lines.

RESERVE FOR REPAIRS - \$30,973.73:

The balance in the Reserve for Repairs of the Wendell System amounted to \$30,973.73 at October 31, 1921, after giving effect to adjustment referred to later, herein, and may be briefly summarized as follows:

Period	Annual Accrual based upon 2% of the Capital Investment	Interest at 4%	Together
1915 to October 31, 1916 Fiscal year ending October 31.	\$ 9,522.91	\$ 180.70	\$ 9,703.61
1917	5,380.68	308.14	5,688.82
1918	5,312.37	614.88	5,927.25
1919	5,315.36	831.23	6,146.59
1920	5,530.36	1,007.88	6,538.24
1921	6,448.28	1,379.34	7,827.62
<u>Together</u>	<u>\$37,509.96</u>	<u>\$ 4,811.34</u>	<u>\$42,321.30</u>
<u>Deduct-</u>			
Cost of new Ventilator and Roof		\$ 243.27	
Replacement of Cross-Arms, etc.		474.36	
Reserve accrued on steel cable replaced		1,810.43	
Cost of Rotary Pump, complete		350.10	
Reserve applicable to equipment transferred		<u>265.10</u>	
		<u>\$ 3,143.16</u>	
Interest applicable to above charges		195.33	3,338.51
<u>Balance at October 31, 1921</u>			<u>\$30,973.73</u>

During the period from the commencement of operations, to October 31, 1919, the additions to the Reserve for Repairs in respect

of properties of the System, were provided through inclusion, in the cost of power to the municipalities, of an annual charge of $3\frac{1}{2}\%$ on the capital investment. Interest at the rate of 4% per annum on the balance in the Reserve Account is credited to that account.

In the fiscal year ending October 31, 1920, upon the advice of its Engineers, the Commission reduced the annual renewal rate from $3\frac{1}{2}\%$ to 2% on the capital investment, while the interest rate of 4% remained unchanged. The accounts of the Commission were so adjusted that the rate of $3\frac{1}{2}\%$ was made effective from 1914 to October 31, 1919, and the same renewal rate has obtained to October 31, 1921.

The amount of the adjustment for the period from 1914 to October 31, 1919, which has resulted in a decreased cost of power to the various municipalities, amounted to \$20,535.00 and the effect, by years, is as follows:

<u>Year</u>	<u>Annual Provision</u>	<u>Interest</u>	<u>Together</u>
1915	\$ 3,302.13	\$ -	\$ 3,302.13
1916	3,754.07	135.53	3,889.60
1917	3,944.77	291.11	4,235.88
1918	3,926.82	400.55	4,427.37
1919	3,926.49	638.43	4,564.92
<u>Total</u>	<u>\$19,859.28</u>	<u>\$ 1,525.62</u>	<u>\$20,535.00</u>

The amount of \$20,535.00 was credited to municipalities, as follows:

Peaverton	\$ 4,702.70
Brochin	3,050.40
Cannington	4,300.05
Cumderland	3,733.72
Woodville	3,808.64
<u>Total</u>	<u>\$20,535.00</u>

The annual rate of 2% was determined by a reclassification of the properties, as reflected in the book accounts as at October 31, 1920, made by the Engineering Department of the Commission. The reclassification of properties, the life, residual values, etc., are set forth in Exhibit III.

The sinking fund method of making additions to the Reserve at the rate of 3%, together with interest at 4% per annum on the balance in the Reserve Account is equivalent to a so-called straight line provision of approximately 3½% for a period of twenty-eight years. That is, while the annual provisions under the two methods differ in amount, either method would accumulate the sum required within approximately that period.

Similar to the policy adopted in other systems, charges against the Reserve on account of properties transferred to other systems, replacements, etc., are computed on a straight line basis, whereas the provisions for renewals in respect of the properties, as previously stated, have been made on a sinking fund basis. While the charges in this connection up to October 31, 1921, are comparatively small in amount, it is quite possible, should the charges become heavier, a considerable difference may develop between the actual accruals and the amounts in respect of which the account is relieved.

	(WASSELL SYSTEM -	\$11,169.81)
RESERVE FOR SINKING FUND -	(WASSELL POWER LINES -	\$11.43)

The Reserve for Sinking Fund of the Wassell System is provided in accordance with Section 23 (b) and the second main paragraph of the same section of the Power Commission Act, both of which subdivisions have been quoted in the report on the Niagara System.

The basis for ascertaining the amount of the Reserve for sinking fund each year is, for the Wassell System, the capital cost of the power development, lines and stations, completed and in operation. The method used by the Commission in calculating the amount of the Sinking Fund Reserve of this System, is the same as is described in the report upon the Niagara System.

As permitted under the Power Commission Act, the collection of the Sinking Fund was deferred for the period of five years for all

municipalities in this system. From the respective dates the collections were started, to October 31, 1921, the sums provided by inclusion in power costs to municipalities, to the Severn System, and to sundry companies during each fiscal year, together with interest, are set forth below:

<u>Particulars</u>	<u>Years ending October 31,</u>		<u>Totals</u>
	<u>1930</u>	<u>1921</u>	
Amounts included as part of the cost of power -			
To Municipalities	\$ 2,686.37	2,929.75	5,126.03
To Severn System	1,728.52	1,540.29	3,337.11
To Companies	851.73	1,523.79	2,434.53
Interest at 4% per annum	-	211.86	211.86
<u>Balance</u>	<u>\$ 5,396.53</u>	<u>5,872.99</u>	<u>11,169.51</u>

The above summary shows the aggregate amount of the sinking fund collectible at October 31, 1921 from five municipalities having taken power for six years or longer, the initial charge being made in the sixth year's power cost. The sinking fund charges deferred at October 31, 1921, amounted to \$191.22 in respect of the municipality of Kirkfield, the deferment being permitted, as the five year period had not elapsed.

Since the Severn System is served with electrical power by the Wasdell System, the question arises as to the equity the Severn System may have in the physical properties of the Wasdell System through Sinking Fund payments included in the cost of power furnished. It is our intention to deal fully in the general accounting report with the questions relative to the ultimate ownership of properties.

The Sinking Fund Reserve of the Wasdell Rural Lines amounting at October 31, 1921, to \$611.43, represents accumulations from 1918 to 1921, of sinking fund instalments of \$585.38, and interest of \$23.05 charged to municipalities served by the lines.

RESERVE FOR CONTINGENCIES - \$340.64:

The Reserve for Contingencies was established by the Commission for the purpose of providing for special losses or expenses not arising at regular intervals and not wholly applicable to the period in which incurred. The creation of such a reserve is sanctioned in Section 14b, of the Power Commission Act. The Reserve for Contingencies is provided by means of -

- (a) Charges to the municipalities, to sundry customers and to the Severn System at the rate of 25 cents per horse power per annum, included as part of the cost of power delivered to them
- (b) Profit from sale of equipment, and
- (c) Interest at four per cent. per annum

The sums provided from the opening of the account, to October 31, 1921, and the charges for the period, are shown below:

Amounts included as part of the cost of power delivered -

To Municipalities	\$374.66	
" Private Companies	74.23	\$ 448.89
Severn System- proportionate charges on power purchased		653.33
Net profit on sales of aluminum, cable and sundry equipment		12,614.70
Interest at 4% per annum		1,635.49
<u>Total Credits</u>		<u>\$15,342.41</u>

Debit- Expenditures in 1920 applied against the cost of stringing aluminum cable on a large portion of the System	\$14,519.07	
To meet losses in 1920 on power sold to private companies	582.70	15,101.77
<u>Balance as at October 31, 1921</u>		<u>\$ 240.64</u>

The balance of the contingent reserve as at October 31, 1920, of \$15,101.77 was absorbed by the charges made during 1920 leaving the System without any reserve for contingencies at the end of that year. The balance at October 31, 1921, of \$240.64 represents the provision made during the year ending at that date.

In respect of the charge of \$14,519.07, in 1922, shown above, the following description is given:

Replacement of steel cable on the Section between Wendell Falls and the Junction for Woodville, with steel reinforced aluminum cable-		
Total cost of the work		\$27,194.43
Cost of steel reinforced aluminum cable	\$12,236.06	
<u>Less - Portion of Renewals Reserve applicable to the old cable, etc.</u>	<u>1,718.31</u>	<u>13,979.27</u>
<u>Balance</u>		<u>\$13,207.16</u>
<u>Sundry expenditures</u>		<u>1,311.91</u>
<u>Total</u>		<u>\$14,519.07</u>

Giving consideration to the extent of the properties and the probability of losses and expenses arising from storms, accidents or other unforeseen conditions, we would recommend that a substantial contingency reserve be maintained in connection with this system, as, in our opinion, the policy adopted by the Commission of providing such a reserve, is sound.

ACCOUNTS WITH MUNICIPALITIES:

Accounts with Municipalities are sub-divided by the Commission as follows:

Power Accounts Receivable

Due by Municipalities in respect
of the cost of power furnished
them as determined under the
Power Commission Act

Power Accounts Receivable - \$2,625.13:

These accounts represent unpaid balances in respect of interim power bills rendered which, as at October 31, 1921, amounted to \$2,625.13. As at September 30, 1922, the date inquired into by us, all accounts had been paid.

Due by Municipalities in Respect of Cost of Power - \$19,117.39:

At the close of each fiscal year, interim power bills rendered monthly, are adjusted to meet the operating costs of the System, determined, as provided for in Sections 6c and 23 of the Power Commission Act. Following are the amounts of the adjustments required of interim power bills rendered each year for the four years ending October 31, 1921 (cents omitted):

<u>Particulars</u>	<u>Fiscal year ending October 31</u>			
	<u>1918</u>	<u>1919</u>	<u>1920</u>	<u>1921</u>
Amounts due by certain Municipalities being the excess of the cost of power over the sums charged therefor, during the period	\$8,993	\$3,490	\$1,304	\$ 181
<u>Deduct:-</u>				
Amounts due to certain municipalities, being the excess of the sums charged for power furnished, over the cost of power during the period	-	-	317	2,366
Net amount due by or to certain municipalities, based on the adjustment of costs as provided for by the Act	\$8,993	\$3,490	\$1,087	\$ 115

As a result of the charges or credits such as the above, as at October 31, 1921, the entire six municipalities comprising the System had debit balances aggregating \$19,117.39 representing under-payments for power, interest charges thereon, etc. For the purpose of ascertaining the length of time these debit balances were outstanding we have prepared and have attached hereto, Exhibit IV. The more important features to which we would draw your attention in connection with the study of this Exhibit are -

- (1) No cash payments have been made on account
- (2) The accounts show charges one year following another indicating that interim rates do not cover the actual cost of power
- (3) As indicated by the column headed "year" it will be observed that the accounts extend back over a period of years.

With reference to the extension of time for the payment of accounts with municipalities, the Power Commission Act provides that during the first three years after any municipality shall first begin to take power from the Commission, the Commission may extend time for payment of the sums payable.

It will be well to state that no payments have been made on these accounts subsequent to October 31, 1921.

* * * * *

We shall be pleased to furnish any further information on the accounts of this System which you may desire.

Yours very truly,

Price, Waterhouse & Co.

HYDRO - ELECTRIC POWER COMMISSION OF ONTARIO

WADDELL SYSTEM - OPERATING ACCOUNT

Particulars	Year ending October 31			
	1918	1919	1920	1921
REVENUE:				
From Municipalities	\$ 19,974.66	\$ 18,214.76	\$ 21,550.09	\$ 21,588.58
From Private Companies and from Severn System	9,125.42	18,503.94	17,513.95	20,803.60
<u>Total Revenue</u>	\$ 29,100.08	\$ 31,723.70	\$ 39,164.04	\$ 42,392.18
COST OF OPERATING, including portion of Administrative Expense:				
Power Development and Transformer Stations-				
Operating-				
Labor	\$ 3,342.22	\$ 4,240.15	\$ 5,076.86	\$ 5,255.69
Material and Expense	454.46	1,110.76	1,030.84	2,452.77
Maintenance-				
Land, Buildings and Structures	305.84	403.08	428.72	435.70
Electric Equipment	321.86	166.54	862.23	698.41
Switchboards and Meters	107.19	285.36	170.98	268.55
Hydraulic Machinery and Apparatus	-	-	-	312.64
Miscellaneous Equipment	919.76	417.82	1,442.32	307.57
Taxes, Insurance and General Expenses	313.57	196.65	276.44	96.60
Transmission Lines-				
Maintenance-				
Land	332.80	2.15	32.66	94.84
Patrolling	209.88	325.09	244.61	716.30
Pole Lines	201.01	73.59	193.67	440.49
Conductors and Cables	104.89	37.72	158.94	68.31
Miscellaneous Expense	32.64	26.91	28.85	-
Overhead Expense-				
Head Office Salaries and Expenses	1,021.18	1,967.64	2,045.56	1,200.91
Municipal Expenses	657.67	1,184.51	1,609.41	1,741.28
Miscellaneous Expenses	693.14	241.62	1,130.73	1,279.17
<u>Total Expenses</u>	\$ 9,018.11	\$ 10,680.10	\$ 14,732.52	\$ 15,369.03
Balance before deducting Fixed Charges, etc.	\$ 20,081.97	\$ 21,043.60	\$ 24,431.52	\$ 27,023.15
DEDUCT - Fixed Charges-				
Interest on Capital Investment	\$ 10,630.73	\$ 11,516.53	\$ 13,526.10	\$ 14,672.10
Provision for Renewals	9,301.89	9,301.79	5,938.36	6,449.28
Provision for Sinking Fund	-	-	5,296.52	5,661.13
Provision for Contingencies	149.35	225.28	253.24	240.64
<u>Total Fixed Charges</u>	\$ 20,081.97	\$ 21,043.60	\$ 25,014.22	\$ 27,023.15
Net Loss representing loss on sale of power to a Private Company, undistributed to Municipalities	-	-	\$ 582.70	-
Loss transferred to Reserve for Contingencies	-	-	\$ 582.70	-

HYDRO - ELECTRIC POWER COMMISSION OF ONTARIO

WARDELL SYSTEM

ANALYSIS OF REVENUE FROM MUNICIPALITIES TOGETHER WITH
HORSE POWER LOADS AND RATES

(Subsidiary to Operating Account)

Particulars	Revenue			Average Horse Power	Actual Cost per H.P. (adjusted)	Interim Rates per H.P.
	Per Operating Account	Renewal Adjustment	Adjusted			
YEAR ENDING OCTOBER 31, 1918:						During Fiscal Year
Beaverton	\$ 4,418.23	\$ 831.71	\$ 3,586.52	63.7	\$ 56.30	\$41.21
Brechin	3,551.69	823.90	3,127.79	38.3	81.67	50.00
Cannington	4,316.14	819.01	3,497.13	58.7	59.58	45.79
Sunderland	3,908.07	822.92	3,085.15	37.5	82.27	50.00
Woodville	3,380.53	688.98	2,691.55	36.4	73.94	50.00
Savern System	9,125.42	-	9,125.42	362.8	(a) 25.15	25.00
Total	\$29,100.08	\$ 3,985.52	\$25,113.56	597.4		
YEAR ENDING OCTOBER 31, 1919 :						To April 30, 1919 To October 31, 1919
Beaverton	\$ 3,784.47	\$ 943.73	\$ 2,840.74	85.2	\$ 33.34	\$41.21 \$45.00
Brechin	3,143.49	908.02	2,235.47	46.6	47.97	50.00 55.00
Cannington	3,500.39	785.53	2,714.86	68.1	39.87	45.79 50.00
Sunderland	3,097.47	719.86	2,377.61	45.7	52.03	50.00 55.00
Woodville	2,688.94	629.35	2,059.59	42.1	48.92	50.00 55.00
Savern System	15,508.94	-	15,508.94	613.4	(a) 25.28	25.00 25.00
Total	\$31,725.70	\$ 3,986.49	\$27,737.21	901.1		
YEAR ENDING OCTOBER 31, 1920:						To January 1, 1920 To October 31, 1920
Beaverton	\$ 5,947.89	\$ -	\$ 5,947.89	104.2	\$ 57.08	\$45.00 \$55.00
Brechin	3,231.26	-	3,231.26	34.5	93.66	55.00 85.00
Cannington	4,895.04	-	4,895.04	81.1	60.36	50.00 65.00
Kirkfield (June 1920)	313.58	-	313.58	4.3	(b) 72.92	- 45.00
Sunderland	3,733.35	-	3,733.35	47.5	78.60	55.00 85.00
Woodville	3,528.97	-	3,528.97	47.9	73.67	55.00 80.00
Crushed Stone Company, Limited	5,097.07	-	5,097.07	98.4	(c) 51.80	(See Report)
Savern System	12,416.88	-	12,416.88	492.1	(a) 25.23	25.00 25.00
Total	\$59,164.04	-	\$59,164.04	910.		
YEAR ENDING OCTOBER 31, 1921:						To December 31, 1920 To October 31, 1921
Beaverton	\$ 5,586.08	\$ -	\$ 5,586.08	107.4	\$ 52.01	\$55.00 \$60.00
Brechin	3,237.72	-	3,237.72	39.	83.02	85.00 90.00
Cannington	4,214.74	-	4,214.74	75.8	57.11	65.00 65.00
Kirkfield	982.08	-	982.08	13.9	70.65	45.00 60.00
Sunderland	3,649.50	-	3,649.50	49.5	73.73	85.00 85.00
Woodville	3,918.46	-	3,918.46	57.2	68.50	80.00 80.00
Crushed Stone Company, Limited	8,440.00	-	8,440.00	196.5	(a) 42.52	(See Report)
Savern System	12,363.60	-	12,363.60	423.2	29.21	25.00 25.00
Total	\$42,392.18	-	\$42,392.18	962.5		

NOTE:

- (a) Average horse power billed, reduced by line loss thereby increasing the flat rate of \$25.00 used in interim power bills
- (b) Electrical power delivered to these municipalities during part of the year only, has been put on an annual basis
- (c) Average selling price

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

WASDELL SYSTEM

STATEMENT OF HORSE POWER LOADS AND RATES FOR THE
10 MONTHS ENDING AUGUST 31, 1922

Particulars	Average Horse Power	Rates per H. P.		
		January 1 to August 31		
		To January 1	Original	Adjusted Retroactive to January 1
Desverton	111.1	\$60.00	\$60.00	\$65.00
Brechin	20.5	90.00	90.00	
Cannington	75.3	65.00	65.00	
Kirkfield	26.1	60.00	60.00	
Sunderland	39.4	85.00	85.00	
Woodville	49.9	80.00	80.00	
Crushed Stone, Limited	191.9	12.00 h.p. } plus 5.2, } 3.5 and } .15% K.W.H. }	12.00 h.p. } plus 5.2, } 3.5 and } .15% K.W.H. }	
Severn System	329.4	25.00	25.00	

HYDRO- ELECTRIC POWER COMMISSION OF ONTARIO

VASDELL SYSTEM RURAL LINES -
OPERATING ACCOUNT

Particulars	Year ending October 31			
	1918	1919	1920	1921
<u>REVENUE:</u>				
Interest and Sinking Fund collectible from Municipalities which operate lines	\$ 129.03	\$ 618.85	\$ 782.68	\$ 963.25
<u>Deduct-</u>				
Interest on Capital Investment	\$ 100.00	\$ 478.54	\$ 583.29	\$ 743.60
Provision for Sinking Fund	29.03	140.31	199.39	219.65
	\$ 129.03	\$ 618.85	\$ 782.68	\$ 963.25
<u>Balance</u>	Nil	Nil	Nil	Nil

Note:

Rural Lines operated by the municipalities of Beaverton, Brechin, Brock Township and Woodville which supply the power and pay the operating expenses.

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

WASDELL SYSTEM

STATEMENT SHOWING BASIS OF ANNUAL RATE OF 2% FOR THE
RESERVE FOR RENEWALS

Particulars	Capital Investment October 31, 1920		Estimated Residual Value		Reserve to be Provided		
	Total Amount	Esti- mated Life (in Years)	% of In- vest- ment	Amount	Total Amount	Annual Provision (Sinking Fund Basis) Amount	% of In- vest- ment
Transformer Stations:							
Sites	\$ 1,261.00	-	100	1,261.00	-	-	
Buildings	3,896.00	60	20	779.00	3,117.00	13.10	
Electrical Equipment	21,058.00	25	20	4,212.00	16,846.00	404.51	
Together	\$ 26,215.00	-	-	6,252.00	19,963.00	417.61	1.593
Transmission Lines:							
Right-of-Way	\$ 9,727.00	-	100	9,727.00	-	-	
Pole Line	95,937.00	16	5	4,797.00	91,140.00	4,176.03	
Power Cable-							
Aluminum	44,862.00	75	60	26,917.00	17,945.00	40.00	
Steel	2,176.00	20	10	218.00	1,958.00	65.75	
Copper Wire	988.00	75	60	593.00	395.00	.88	
Together	\$153,690.00	-	-	42,252.00	111,438.00	4,282.66	2.787
Generating Plant:							
Site	\$ 8,140.00	-	100	8,140.00	-	-	
Excavation Rock	16,163.00	-	100	16,163.00	-	-	
Dam	7,621.00	100	-	-	7,621.00	6.16	
Power House Sub- station (concrete)	18,482.00	100	-	-	18,482.00	14.93	
Power House Super- structure (con- crete)	18,482.00	100	-	-	18,482.00	14.93	
Winch and Head Gate	3,381.00	25	5	169.00	3,212.00	77.13	
Electrical Equip- ment	40,047.00	25	20	8,009.00	32,038.00	769.30	
Turbines	23,659.00	25	10	2,366.00	21,293.00	511.29	
Mechanical Equip- ment	713.00	25	5	36.00	677.00	16.26	
Auxiliary Buildings	5,072.00	30	5	254.00	4,818.00	85.90	
Together	\$141,760.00	-	-	35,137.00	106,623.00	1,495.90	1.055
Totals	\$321,665.00	-	-	83,641.00	238,024.00	6,196.17	1.926

(Total Capital Investment, per books, at October 31, 1920
\$321,865.43)

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

Exhibit IV.

WASDELL SYSTEM

Statement of Accounts due by Municipalities in respect of the Cost of Power at October 31, 1921, still unpaid at September 30, 1922.

Municipality	Year	Charge or Credit	Interest	Adjustments	Balance October 31, 1921
Beaverton	1915	\$3,244.06	-	-	\$4,751.99
	1916	1,925.82	129.77	-	
	1917	927.70	211.98	-	
	1918	1,793.51	257.57	-	
	1919	183.68	339.61	-	
	1920	640.30	169.06	-	
	1921	485.62	301.45	(1) 4,756.70	
Breechin	1915	1,373.95	-	-	3,680.19
	1916	1,323.32	54.95	-	
	1917	654.59	110.08	-	
	1918	2,041.90	140.67	-	
	1919	693.83	227.98	-	
	1920	542.14	118.47	-	
	1921	87.09	144.89	(1) 3,659.49	
Cannington	1915	2,881.20	-	-	3,645.65
	1916	1,991.19	115.25	-	
	1917	1,000.93	195.50	-	
	1918	1,627.15	243.36	-	
	1919	304.08	318.18	-	
	1920	71.65	159.11	-	
	1921	582.21	162.61	(1) 4,599.05	
Kirkfield	1920	121.21	-	-	307.02
	1921	180.96	4.85	-	
Sunderland	1915	1,865.55	-	-	3,587.46
	1916	1,255.44	74.62	-	
	1917	1,035.88	127.83	-	
	1918	2,031.25	174.37	-	
	1919	768.60	262.60	-	
	1920	84.46	154.51	-	
	1921	554.31	159.30	(1) 2,722.72	
Woodville	1915	2,184.71	-	-	3,145.08
	1916	1,475.37	87.30	-	
	1917	1,029.53	149.92	-	
	1918	1,499.58	197.08	-	
	1919	539.62	264.94	-	
	1920	225.31	144.87	-	
	1921	657.22	146.24	(1) 2,836.64	
		Total			\$19,117.39

Note:

(1) Represents reduction in Reserve for Renewals from commencement of operations to October 31, 1919.

No payments were made on account subsequent to October 31, 1921.

SPECIMEN OF AGREEMENT FOR WALKER LINES
OPERATED BY THE COMMISSION

Excerpts from Agreement dated April
2, 1913, entered into by the Hydro-
Electric Power Commission of Ontario
and the Municipal Corporation of the
Police Village of Brechin

The Commission agrees with the Corporation to reserve and deliver at the earliest possible date, fifty horse power (50 H.P.) or more of electrical energy and power to the Corporation, and at the expiration of a reasonable notice in writing, which may be given by the Corporation from time to time during the continuance of this agreement, to reserve and deliver to the Corporation, additional electric energy and power when called for.

In consideration of the foregoing covenants, the Corporation agrees with the Commission:-

To pay annually, interest at 4% per annum upon the Corporation's proportionate part (based on the quantity of electrical energy or power taken) of all moneys expended by the Commission on capital account for the acquiring of properties and rights, the acquiring and construction of generating plants, transformer stations, transmission lines, distributing stations and other works necessary for the delivery of said electrical energy or power to the Corporation under the terms of this contract.

Also to pay an annual sinking fund instalment of such amount as to form at the end of 30 years, with accrued interest, a sinking fund sufficient to repay the Corporation's proportionate part, based as aforesaid, of all moneys advanced by the Province of Ontario for the acquiring of properties and rights, the acquiring and construction of generating plants, transformer stations, transmission lines, distributing stations and other work necessary for the delivery of said electrical energy or power delivered to the Corporation under the terms of this contract. Also to pay the Corporation's proportionate part, based as aforesaid, of the cost of lost power, operating, generating, maintaining, repairing, renewing and insuring said generating plants, transformer stations, transmission lines, distributing stations and other necessary works. Also to pay a proportionate part, based as aforesaid, of any administration and rentals which may be necessary.

The amounts payable under this contract shall be paid in twelve monthly payments, and bills shall be rendered by the Commission on or before the 5th day and paid by the Corporation on or before the 15th day of each month. All payments in arrears shall bear interest at the legal rate.

To take electric power exclusively during the continuance of this agreement from the Commission.

- - -

To pay for three-fourths of the power ordered from time to time by the Corporation and held in reserve for it as herein provided whether it takes the same or not. When the greatest amount of power taken for any twenty consecutive minutes during any month shall exceed during the twenty consecutive minutes three-fourths of the amount ordered by the Corporation and held in reserve, then the Corporation shall pay for this greater amount during the entire month.

If the Corporation during any month takes more than the amount of power ordered and held in reserve for twenty consecutive minutes, the taking of such excess shall thereafter constitute an obligation on the part of the Corporation to pay for and on the part of the Commission to hold in reserve an additional block of power in accordance with the terms and conditions of this contract.

When the power factor of the greatest amount of power taken for said twenty consecutive minutes falls below 90% the Corporation shall pay for 90% of said power divided by the power factor.

This agreement shall remain in force for thirty years from the date of the first delivery of power under this contract.

The Commission shall at least annually adjust and apportion the amount or amounts payable by the Municipal Corporation or Corporations for such power and such interest, sinking fund, lost power, cost of generating, operating, maintaining, repairing, renewing and insuring said works.

If at any time any other Municipal Corporation or pursuant to said Act, any railway or distributing Company, or any other Corporation or person, applies to the Commission for a supply of power, the Commission shall notify the applicant and the Corporation in writing, of a time and place and hear all representations that may be made as to the terms and conditions for such supply.

In determining the quantity of power supplied to a Municipal Corporation, the quantity supplied by the Commission within the limits of the Corporation to any applicant, other than a Municipal Corporation, shall be computed as part of the quantity supplied to such Corporation, but such Corporation shall not be liable to pay for the power so supplied, or otherwise in respect thereof no power shall be supplied by the Municipal Corporation to any railway or distributing Company without the written consent of the Commission. Power shall not be sold for less than the cost and without discrimination as regards price and quantity.

It is hereby declared that the Commission is to be a trustee of all property held by the Commission under this agreement for the Corporation or Corporations supplied by the Commission, but the Commission shall be entitled to a lien upon

